

ABSTRACT

A nitride-based semiconductor device according to the present invention includes a semiconductor multilayer structure supported on a substrate structure **101** with electrical conductivity. The principal surface of the substrate structure **101** has at least one vertical growth region, which functions as a seed crystal for growing a nitride-based semiconductor vertically, and a plurality of lateral growth regions for allowing the nitride-based semiconductor that has grown on the vertical growth region to grow laterally. The sum ΣX of the respective sizes of the vertical growth regions as measured in the direction pointed by the arrow **A** and the sum ΣY of the respective sizes of the lateral growth regions as measured in the same direction satisfy the inequality $\Sigma X / \Sigma Y > 1.0$.